K50 / K100

Pleated Panel Filter · Cardboard Frame Series · EN779 / MERV / ISO 16890

FILTLAB



DESIGN FEATURES & ENGINEERING NOTES

Special Synthetic Fiber Media
High-efficiency synthetic fiber media delivers consistent G4 arrestance (≥90%) across the full rated airflow range in HVAC and pre-filtration applications.

Sturdy Beverage Board Frame
Rigid cardboard (beverage board) frame maintains structural integrity under rated HVAC pressures, resisting deformation up to the 250 Pa final resistance limit.

High Dust-Holding Capacity
Diamond-pattern pleat geometry with optimised pleat pitch maximises dust-loading capacity, extending service intervals in high-particulate environments.

Humidity-Resistant Performance
Synthetic fiber media maintains filtration efficiency and structural integrity across all humidity levels and continuous operating temperatures to 80 °C.

Environmentally Friendly Design
Cardboard frame is fully recyclable; all materials are environmentally compatible and the filter assembly meets UL 900 fire protection requirements.

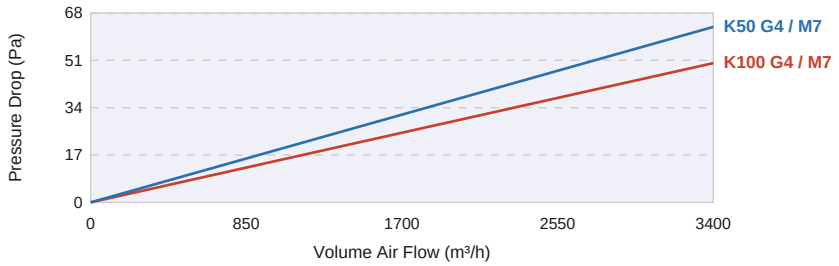
Low Pressure Drop Construction
Pleated geometry minimises initial resistance — K50: 63 Pa / K100: 50 Pa at rated flow — reducing fan energy consumption versus flat-panel alternatives.

PERFORMANCE MATRIX — EN779 TESTED · MERV / ISO 16890 EQUIVALENT

Nominal Size W×H×D (in)	Actual Dims (mm)	Air Flow (m³/h)	ASHRAE 52.2	Avg Arrestance (%)	EN779	ISO 16890	ΔP Initial (Pa)	ΔP Final (Pa)
24×24×2	592×592×44	3,400	MERV 7	≥90	G4	ISO Coarse	63	250
20×24×2	490×592×44	2,800	MERV 7	≥90	G4	ISO Coarse	63	250
20×20×2	490×490×44	2,600	MERV 7	≥90	G4	ISO Coarse	63	250
12×24×2	287×592×44	1,700	MERV 7	≥90	G4	ISO Coarse	63	250
24×24×4	592×592×95	3,400	MERV 7	≥90	G4	ISO Coarse	50	250
20×24×4	490×592×95	2,800	MERV 7	≥90	G4	ISO Coarse	50	250
20×20×4	490×490×95	2,600	MERV 7	≥90	G4	ISO Coarse	50	250
12×24×4	287×592×95	1,700	MERV 7	≥90	G4	ISO Coarse	50	250

Measurement Method: EN779:2012 | MERV & ISO 16890 = equivalent (Eurovent REC 4/23) | Initial Resistance ±10% | Other sizes available upon request

PRESSURE DROP vs. AIRFLOW (592 × 592 mm)



BILL OF MATERIALS & OPERATING CONDITIONS

Frame	Beverage Board (Cardboard)	**Max. Temperature**	80 °C
Filter Media	Special Synthetic Fiber	**Humidity Limit**	None (100% RH tolerated)
Pleat Pattern	Diamond Pattern	**Test Standard**	EN779 (MERV / ISO equiv.)
Metal Parts	None (metal-free)	**Test Method**	Synthetic Dust Arrestance
Fire Rating	UL 900	**Pre-filter**	G1–G3 recommended
Available Depths	44 mm (K50) / 95 mm (K100)	**Applications**	HVAC / Painting / Climate Control

APPLICATION SELECTION GUIDE

EN779 / MERV	ISO 16890	Typical Application	Contaminants Removed	Pre-filter
G4 / MERV 7	ISO Coarse	HVAC Pre-Filter / AHU Climate Control	Coarse dust, pollen, fibres, mist	None required
G4 / MERV 7	ISO Coarse	Painting Industry	Paint overspray, pigment, aerosol mist	None required
G4 / MERV 7	ISO Coarse	Extended-Service HVAC Industrial	Coarse dust, pollen, fibres	None required